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DOI:

[10.1163/1568525X-12341857](https://doi.org/10.1163/1568525X-12341857)

*Document Version*

Peer reviewed version

[Link to publication record in King's Research Portal](#)

*Citation for published version (APA):*

Bouras-Vallianatos, P. (2016). Modelled on Archigenes 'theiotatos': Alexander of Tralles and his Use of Natural Remedies ('physika'). *MNEMOSYNE*, 69(3), 382-396. <https://doi.org/10.1163/1568525X-12341857>

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## Modelled on Archigenes *theiotatos*: Alexander of Tralles and his Use of Natural Remedies (*physika*)

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### Abstract

In contrast to other Late Antique medical authors, Alexander of Tralles uses the epithet *theiotatos* (most divine) when referring to Archigenes. This appellation becomes even more significant if one considers that Alexander otherwise only applies it to Hippocrates and Galen. Since the majority of Alexander's mentions of Archigenes stress his recommendation of popular healing practices, which most medical authors excluded from their work, I argue that for Alexander Archigenes was a model of a well-known ancient medical authority who chose to make consistent use of natural remedies (*physika*).

### Keywords

Archigenes, Alexander of Tralles, natural remedies/*physika*, popular/folk medicine, late antique medicine, reception studies

### 1. Introduction

In the field of medical literature, Late Antiquity is mainly characterised by the production of medical compilations based on Greek and Latin literature on the subject.<sup>1)</sup> Authors such as Oribasios (AD *ca.* 325 – after 395/6) and Aetios of Amida

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<sup>1)</sup> For an introduction to late antique medicine, see Westerink 1964, 169-77; Temkin 1991, 213-48; and Nutton 2013, 299-317. Apart from the medical compilations, there are also commentaries by Alexandrian authors such as Stephen (late sixth/early

(first half of the sixth AD) on the Greek side, or Caelius Aurelianus (*fl.* around AD 400) and Theodore Priscianus (fourth/fifth century AD) on the Latin side, composed works using various ways of adopting and reorganising the great medical production of antiquity in systematic form.<sup>2)</sup> These texts varied in length, in how original they were and the reasons for which they were written. Alexander of Tralles (AD *ca.* 525 – *ca.* 605) is one of the most notable cases as regards the way he presents his material.

Alexander came from a well-known provincial family from the city of Tralles in Asia Minor and, according to Agathias (*Hist.* 5.6), practised in the reign of Justinian I (AD 527 – 565). He wrote on a variety of medical subjects depicted in his three surviving works: the *Therapeutics*, *On Fevers*, and *On Intestinal Worms*.<sup>3)</sup> His magnum opus, the *Therapeutics*, follows an *a capite ad calcem* (from head to toe) structure and provides details on diagnosis and therapy of diseases in twelve books. Alexander shows great eclecticism in selecting his sources, influenced not only by Hippocratic and Galenic writings but also by the therapeutic recommendations of the Methodists and Pneumatists. Furthermore, his pharmacology is usually supplemented by his rich clinical experience, which he not only uses to verify the accuracy of earlier pharmacological recipes but also to introduce new simple and composite drugs.<sup>4)</sup>

This article aims to contribute to the little studied field of late antique medical literature and, in particular, the reception of ancient medical works by late antique medical authors. I have chosen to examine Archigenes' reception by Alexander of Tralles, as I consider it a significant case. Alexander seems to have used Archigenes as a model medical author, which even leads him to elevate Archigenes to the status of an authority equal to Hippocrates and Galen. I would like to show that Alexander's choice is closely related to his decision to include a substantial number of natural remedies, *physika*, in his writings. Firstly I shall give a brief introduction on the little evidence we have on Archigenes' works and his reception in the centuries following his death, which will provide the essential background for my discussion of specific passages from Alexander's text below.

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seventh c. AD); see Hunger 1978, 2.291-303, who provides an overview of the late antique medical literature with an emphasis on the Greek side.

<sup>2)</sup> Dates are approximate and follow Leven 2005a. On the compiling techniques used by late antique medical authors to compose their material, see van der Eijk 2010, 519-54.

<sup>3)</sup> On Alexander's biographical details and his works, see Puschmann 1878-9, 1.75-87; Scarborough 1997, 51-60; Guardasole 2006, 557-70; and Langslow 2006, 1-4.

<sup>4)</sup> Bouras-Vallianatos 2014, 344-8.

## 2. Archigenes and the reception of his works

Archigenes was originally from the Hellenised Syrian city of Apameia. He seems to have been active as a practising physician in Rome during Trajan's reign (AD 98 – 117) and died at the age of 63 (*Suda*, s.v. Archigenes).<sup>5)</sup> He appears as a student of the pneumatist Agathinus and seems to have already attained great fame during his lifetime, receiving a favourable mention from his contemporary, the poet Juvenal (6.236, 13.98, 14.252). He was principally influenced by the Pneumatists, but he seems to have included views from other contemporary schools in his medical practice and theory, and thus his methods could be seen as eclectic. This is probably the reason why Galen refers to him in his corpus both as a pneumatist (*Diff.Puls.* 3.3, Kühn 8.652.8-16) and elsewhere as related to the Empiricists (*Comp.Med.Loc.* 1.8, Kühn 12.469.12-6) or even the Methodists (*Hipp.Epid.* 2.25, Kühn 17A.120.5-11 = Wenkebach 62.13-7).<sup>6)</sup> Although none of his works survive today in their entirety, we know from fragments in the works of later authors and primarily Galen that he wrote works on a variety of subjects including pulse theory, fever, nosology, surgery, pharmacology, and toxicology.<sup>7)</sup>

Galen appears to criticise Archigenes' theory of eight different pulse qualities as too weak and at times unclear (*Diff.Puls.* 2.6, Kühn 8.625-35) and does not hesitate to castigate him for linguistic infelicities (*Diff.Puls.* 4.3, Kühn 8.931.11-9).<sup>8)</sup> However, he refers to him as one of the most excellent physicians (*Comp.Med.Loc.* 2.1, Kühn 12.535.1-2), *aristos*, among his predecessors and he uses Archigenes' lost work *On Drugs according to Kind* extensively in his pharmacological treatises (e.g. *Comp.Med.Loc.* 5.2, Kühn 12.821.4-5).<sup>9)</sup> Archigenes enjoyed a considerable afterlife

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<sup>5)</sup> For an overview of Archigenes' biographical details, see Wellmann 1895, 19-22; Oser-Grote 2005, 80; Nutton 1996, 993; and Mavroudis 2000, 1-44, which constitutes the most complete study on Archigenes to date and provides evidence from a large number of unedited manuscripts.

<sup>6)</sup> The pseudo-Galenic *Introductio seu Medicus* (*Int.* 4, Kühn 14.684.9-10 = Petit 10.9-10) considers Archigenes an eclecticist.

<sup>7)</sup> For a discussion of Archigenes' works, see the most recent reconstruction by Mavroudis 2000, 54-141.

<sup>8)</sup> On Galen's criticism of the use of language in Archigenes, see Kotzia-Panteli 1995, 100-4.

<sup>9)</sup> For all the references by Galen to Archigenes' pharmacological work *On Drugs according to Kind*, see Fabricius 1972, 198-9.

in the works of Oribasios, Aetios of Amida, and Paul of Aegina.<sup>10)</sup> The majority of the references concentrate on advice about the composition and use of various medicaments; Paul of Aegina also gives a considerable number of references from Archigenes' sphygmology theory (e.g. 2.11). Although a significant number of the references in the works of the late medical authors must have been derived directly from Galen, there are traceable exceptions. For example, we owe to Oribasios the sole known fragments of Archigenes on surgery (e.g. *Coll.Med.* 47.14), while Aetios of Amida, who offers the largest number of references to Archigenes, cites several fragments on pharmacology (e.g. 6.96, 13.1), which are not otherwise found in extant ancient or late antique medical works.<sup>11)</sup> It is notable that almost all quotations related to Archigenes are provided uncritically and without any significant comments by late antique medical authors.

### 3. Archigenes and Alexander of Tralles

At first glance, Alexander's references to Archigenes seem quite limited in comparison with the wide-ranging use of Archigenes by other late antique authors. In fact, he refers to the Greek physician by name only six times altogether. And this actually amounts to only four quotations, since in one case his name is cited directly from Galen and does not include any passage from Archigenes' medical work(s) (5.4, Puschmann 2.155.13-6), while in another case his name is given twice in the same remedy (1.15, Puschmann 1.561.19-563.4). All these instances are found in Alexander's *Therapeutics* and can be divided into two main groups according to the relevant sections of Alexander's text. The first group includes references found in parts connected with Alexander's therapeutic advice on particular diseases while the second one is connected with Alexander's natural remedies, *physika*, and will be discussed in the next section of this article.

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<sup>10)</sup> To give an indication in numbers, Oribasios, in his surviving corpus, and Paul of Aegina, in his much shorter work, make 12 and 24 references to Archigenes respectively, while in the edited part of Aetios of Amida's work there are about 100 quotations. Since none of Archigenes' works survive today and thus we are not able to cross-check the references with the original text, the calculation is based on all the cases where Archigenes' name is given by the aforementioned authors in relation to a particular piece of diagnostic or therapeutic advice.

<sup>11)</sup> Cf. Mavroudis 2000, 212-20.

The first instance found in Alexander's work does not actually refer to a particular piece of medical advice given by Archigenes, but comes at a particular point where Alexander criticises a certain Galenic recommendation (5.4). The chapter focuses on the diagnosis and therapy of patients suffering from gluey and thick pulmonary humours. Alexander starts his account by providing several details on diagnosis. At one point, he refers to a certain pneumonic affection where a stone, *lithos*, could be expectorated from the patient's mouth. In his efforts to describe the nature of this particular stone Alexander states that he himself had seen such a stone, which made a noise if thrown on the ground (Puschmann 2.153.20-1). This observation, however, appears to be at odds with what Galen says. According to Alexander, in describing this particular affection, Galen refers to something resembling a hailstone, *chalazion* (Puschmann 2.155.1-4).<sup>12)</sup> Later on, Alexander even disagrees with Galen's proposed therapy using warming agents (Puschmann 2.155.5-6) and, finally, suggests his own composite drugs (Puschmann 2.157.1ff). However, in his eagerness to show that even Galen could be 'mistaken', he quotes him, with reference to Archigenes:

His (Galen's) statement about Archigenes is indeed true: 'it is hard for a man not to be mistaken about many things, about some of which he is completely ignorant, others because he judges them wrongly, and others because he had treated them carelessly'. (Puschmann 2.155.13-6)

In a period when Galen's authority was uncontested,<sup>13)</sup> Alexander finds an intelligent way to counterbalance his criticism by appropriating, in this case, Galen's own words (cf. *Comp.Med.Loc.* 2.1, Kühn 12.535.4-6). I think that the use of the particular quotation, in which Galen openly criticises Archigenes' medical expertise, is not casual. One could argue that the passage should be seen as Alexander's way to mitigate Galen's, at times, critical attitude to Archigenes. In fact, Alexander is very keen to include Archigenes' recommendations without providing any pejorative comments. Thus, it seems like an attempt on Alexander's part to prepare his readers

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<sup>12)</sup> Cf. Galen, *Loc.Aff.* 4.11, Kühn 8.291ff. For a commentary on this particular passage in light of the reception of Galen in Alexander's work, see Guardasole 2004a, 221-6.

<sup>13)</sup> On the rise of Galenism in Late Antiquity, see Temkin 1973, 51-94.

for other passages, in which he does not merely embrace Archigenes' medical advice, but he even calls him 'most divine' ('θειότατος').

This is manifested in chapter 7.4, which concentrates on the discussion of medical conditions connected with an extreme sense of thirst. Having provided some details on diagnosis and general therapeutic advice, Alexander goes on to suggest the use of specific simple and composite drugs. Thus, he states:

And so the most divine Archigenes, who like no one else, was keen to examine certain aspects of medical theory and gives advice to those suffering from heartburn to swallow cold water and, in particular, to those with a biting pain in the stomach and passing out in connection with loss of appetite, [he also recommends] juice of unripe grapes<sup>14)</sup> or quince<sup>15)</sup> [...] or a concoction of dried roses<sup>16)</sup> or four *kotylai*<sup>17)</sup> of the seed of white lettuce<sup>18)</sup> with water. We [ἡμεῖς] have also used composite drugs, and have acquired much experience of them [...]. (Puschmann 2.265.2-11)

The passage starts by praising Archigenes' medical expertise and seems to have been taken from Galen.<sup>19)</sup> However, in his attempts to emphasise Archigenes' medical authority, Alexander goes a step further and supplements the Galenic statement with the epithet *theiotatos*. The text continues with advice on the use of several simple drugs, all of them derived from plant substances. Later on, Alexander marks the end of Archigenes' recommendations by using a strong first-person plural and recounting the several composite drugs that he used to treat his patients.<sup>20)</sup>

<sup>14)</sup> For plants, I give the most common English translation in the main text, while I provide the Greek term and indicative botanical names in the footnotes – in this case: 'ὄμφαξ' (*Vitis spp.* L.).

<sup>15)</sup> 'κυδώνιον μήλον' (*Cydonia oblonga* Mill.).

<sup>16)</sup> 'ρόδον' (*Rosa spp.* L.).

<sup>17)</sup> A small unit of volume equal to 0.274 l; cf. Berendes 1902, 16.

<sup>18)</sup> 'θρίδαξ λευκή' (*Lactuca spp.* L.).

<sup>19)</sup> The original reads: 'Ἀρχιγένης μὲν οὖν ὁ θειότατος, εἶπερ τις καὶ ἄλλος, ἐκμαθεῖν ὄντως τὰ κατὰ τὴν ἰατρικὴν θεωρίαν σπεύσας'. The beginning of the passage recalls Galen's words in a general comment on Archigenes' pharmacological theories and works; cf. Galen, *Comp.Med.Loc.* 2.1, Kühn 12.534.14-6: 'ἄλλ' ὁ γε Ἀρχιγένης εἶπερ τις καὶ ἄλλος ἐκμαθεῖν οὕτω τὰ κατὰ τὴν ἰατρικὴν θεωρίαν σπουδάσας [...]'.  
<sup>20)</sup> The use of first-person singular or plural verbs and pronouns is commonly employed by Alexander to denote his experience in testing the effectiveness of certain medicaments; see Bouras-Vallianatos 2014, 341-2, 344-52. It also appears to be part

In the absence of any particular evidence as to a specific work by Archigenes, it remains unclear to which work Alexander refers. The citation probably does not belong to Archigenes' work on drugs (*On Drugs according to Kind*) which seems to have concentrated on composite drugs. The advice on simples seems to be connected with specific diseases, which implies it was arranged according to the particular affection of the body and thus it might be part of Archigenes' lost works on acute and chronic diseases.<sup>21)</sup> Furthermore, the passage cannot be found in any other extant text, although the use of these particular plants for various gastrointestinal affections is quite common in other ancient authors.<sup>22)</sup> Although the preservation of an otherwise unknown fragment of Archigenes is important for the reconstruction of his ideas and works, the most important aspect of Alexander's reception of the Greek author is the use of the appellation 'θειότατος'.

As one would expect, Alexander uses the term *theiotatos* quite commonly in connection with Galen (twenty-three times) and Hippocrates (eight times) in his corpus. The term is often followed by a certain diagnostic or therapeutic advice in relation to the aforementioned authors. Only rarely does Alexander refer to Galen and Hippocrates without this accompanying epithet (in five and four cases respectively), and there are no particular reasons for this, given the similar nature of the recommendations that is provided. It is notable that in cases where he refers to other authors such as Rufus of Ephesus (*Febr.*, 6, Puschmann 1.387.3), Philagrius<sup>23)</sup> (*Febr.*, 4, Puschmann 2.137.24), and Jacob Phychrestos<sup>24)</sup> (*Febr.*, 5.4, Puschmann 2.163.6-7), Alexander does not use any kind of appellation. The use of the term seems to be providing a distinctive air in the authority of Galen and Hippocrates to whose tradition Alexander belongs.

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of his attempt to claim authority, by projecting himself as a medical practitioner, and not merely as a compiler of medical works in contrast, for example, to Aetios of Amida, who sometimes simply copies first-person verbs and pronouns from the original source; see Debru 1992, 79-89. In this particular case, the first recipe provided (Puschmann 2.265.13-9) resembles a recipe found in Galen's *Comp.Med.Loc.* 9.3, Kühn 13.145.3-12.

<sup>21)</sup> On the limited evidence for these particular works, see Mavroudis 2000, 82-8.

<sup>22)</sup> For example, see Galen, *Comp.Med.Loc.* 9.4, Kühn 13.172.3-4, who suggests the use of white lettuce for a nauseous stomach, and Dioscorides 1.115, who in referring to quince, emphasises their use for a wide range of diseases of the stomach.

<sup>23)</sup> On Philagrius (ca. first half of the fourth century AD), see Masullo 2005, 693-4.

<sup>24)</sup> On Jacob Psychrestos (fifth century AD), see Gossen 1914, 622-3.



The use of the Greek term and its Latin equivalent, *divinissimus*, was widespread since antiquity and was assigned to outstanding authorities in philosophy, medicine, and mathematics. It is notable, however, that none of the late antique authors uses the term in connection with a medical author,<sup>25)</sup> while Galen in his vast corpus uses the term only three times in praising Hippocrates and twice for Plato. By emphasising to his readers the unique authority of his sources, Alexander presumably enhances his own authority. However, before I suggest a possible explanation for Alexander's decision to elevate Archigenes to the same status as Hippocrates and Galen, it may be worth checking the use of other similar terms in Alexander's text.

In addition to *theiotatos*, Alexander applies the term 'most wise' ('σοφώτατος') to certain medical authors and, predictably enough, Galen's name comes up twice. Quite unexpectedly, however, the adjective is assigned on another occasion to one Didymus (7.9, Puschmann 2.319.10-1), author of the so-called *Octateuch*, who seems to have lived around the fourth/fifth century AD.<sup>26)</sup> His work is lost and is only known indirectly from the tradition of associating Didymus' name with popular healing practices, such as the use of amulets.<sup>27)</sup> In Alexander's case, we can see, for example, recommendations for the use of various kinds of amulets presented separately in the paragraph on 'natural remedies (φυσικά) for those suffering from hiccups' (Puschmann 2.319.12-28). It seems that Alexander's reference to the name of Didymus is connected with his decision to include examples of natural remedies in his work. Consequently, I would like to suggest that Alexander's fondness for Archigenes' medical authority could be explained by the second and more substantial group of references, which is connected with natural remedies.

#### 4. Natural remedies (*physika*)

In contrast, for example, to Oribasios and Paul of Aegina, who do not refer to *physika* in their works, Alexander provides a limited number of remedies that could be

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<sup>25)</sup> In the note preceding the contents of the first book of Aetios of Amida's *Tetrabiblon*, Archigenes is mentioned together with Galen and Rufus of Ephesus as the most remarkable of ancient authors ('ἀρχαίων ἐπισήμων') on the subject; see Olivieri, 2.10.1-4.

<sup>26)</sup> On Didymus, see Wellmann 1903, 445.

<sup>27)</sup> See, for example, Aetios of Amida, 6.14; 6.15; and 9.42.

described as popular healing practices. Aetios of Amida and Marcellus of Bordeaux (ca. late fourth century/early fifth century AD) also make considerable use of such practices, but Alexander shows a distinct propensity to differentiate them from his mainstream approach and to provide a reason for including them.<sup>28)</sup> Remedies referring to the use of amulets or incantations have a long history in the field of ancient medicine. Authors such as Galen, Soranus (second half of the first century – early second century AD), and Celsus (first century AD), might refer to such practices, but they were very hesitant about asserting their effectiveness and mostly rejected their use.<sup>29)</sup> Although Alexander sometimes seems apologetic towards the use of natural remedies (1.15, Puschmann 1.557.13-8), on other occasions he maintains that a well-equipped physician should make use of all available medical practices (1.15, Puschmann 1.573.1-6), or that it would be ‘immoral’ (‘ἄσεβές’) to leave out anything which could help the healing process (7.9, Puschmann 2.319.8-9). On the one hand, he attempts to justify the occasional use of incantations by referring to ‘Galen’ through the pseudo-Galenic text *On Medicine according to Homer* (11.1, Puschmann 2.475.4-15),<sup>30)</sup> yet on the other hand, in referring to a group of wealthy patients, he is quick to say that – by refusing painful methods of healing such as the use of clysters – these patients showed a preference for alternative methods, including the use of amulets (8.2, Puschmann 2.375.10-16). Thus, although it is not clearly stated, it may be that competition with other contemporary practitioners of various kinds also played a role in Alexander’s decisions in this respect. Furthermore, it is notable that clinical testing, emphasised several times in Alexander’s natural remedies, apparently constitutes an additional resource in the process of checking the therapeutic effect of such practices.<sup>31)</sup>

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<sup>28)</sup> On Aetios of Amida’s and Marcellus’ references to popular medicine, see Mercatti 1917, 42-6, and Stannard 1973, 50-1, respectively.

<sup>29)</sup> On amulets, see Nutton 1991, 13-22. For a discussion of the relevant passages from Galen’s corpus, see Jouanna 2011, 47-77. For an overview of the views of Latin medical authors, see Capitani 1972, 120-40.

<sup>30)</sup> The text is known only from fragments; Kudlien 1965, 293-9, has argued convincingly for its pseudonymity.

<sup>31)</sup> For a discussion of clinical experience in connection with natural remedies in Alexander’s works, see Bouras-Vallianatos 2014, 348-52.

Alexander uses the term ‘φυσικά’ (‘natural remedies’),<sup>32)</sup> to denote the particular passages in his text.<sup>33)</sup> The sections may be quite short or rather long, as in the case of epilepsy. There are four kinds of ingredients, grouped according to their origins, i.e. plants, animals, minerals, and human blood. Alexander usually identifies his sources as coming from a significant number of earlier authors including well-known ones such as Xenocrates of Aphrodisias<sup>34)</sup> (second half of the first century AD) (1.15, Puschmann 1.559.17) and Theodore Priscianus<sup>35)</sup> (fourth/fifth century AD) (1.15, Puschmann 1.561.2), little-known ones such as Theodore Moschion<sup>36)</sup> (ca. first/second century AD) (1.15, Puschmann 1.563.17) or even otherwise totally unknown writers such as Marsinos of Thrace (1.15, Puschmann 1.565.7). But his three references to Archigenes stand out and, although few in number in comparison with the total number of remedies, they seem to have particular importance. Archigenes’ name was associated with popular healing practices as far back as Galen and he seems to represent a well-established tradition of ancient medical authors who included natural remedies in their texts, undermining the modern notion that by and large surviving Greek and Latin medical works reflect a purely ‘rational’ approach.<sup>37)</sup>

All the references to Archigenes connected with Alexander’s natural remedies are found in the section entitled ‘Natural remedies for epileptics’ (‘Φυσικά πρὸς ἐπιληπτικούς’). It is worth noting that other anonymous natural remedies in Alexander’s work could have originated in Archigenes, although this cannot be cross-

<sup>32)</sup> Cf. LSJ, s.v. φυσικός. For a complete list of the various translations of the term in connection with Alexander’s work, see Bouras-Vallianatos 2014, 348-9, n.74.

<sup>33)</sup> There are five cases in *Therapeutics* and two more ones in *On Fevers*: ‘On Epilepsy’, 1.15, Puschmann 1.557.12-573.6; ‘On Hiccups’, 7.9, 2.319.12-28; ‘On Colic’, 8.2, 2.375.20-377.31; ‘On Nephritic Diseases’, 11.1, 2.475.18-24; ‘On Gout’, 12, 2.579.13-585.24; and ‘On Quotidian Fever’, 6, 1.407.1-10; ‘On Quartan Fever’, 7, 1.437.5-24 respectively. On Alexander’s natural remedies, see Guardasole 2004b, 81-99, who offers a detailed overview.

<sup>34)</sup> On Xenocrates of Aphrodisias, see Wellmann 1907, 614-29.

<sup>35)</sup> Theodore Priscianus’ references to popular healing practices have been discussed recently by Fraisse 2003, 183-92.

<sup>36)</sup> On Theodore Moschion, see Deichgräber 1933, 349-50.

<sup>37)</sup> We know that certain works dealing with *physika* were written by authors such as Bolos (ca. 200 BC) and Aelius Promotus (first/second century AD), which are now lost; cf. Weidlich 1894, 11-75; and Wellmann 1928, 1-80. There is no surviving reference confirming the composition of a specific work on φυσικά by Archigenes. For a discussion of the various references to φυσικά in relation to Archigenes in the indirect tradition, see Mavroudis 2000, 45-51. On Galen’s references to Archigenes’ φυσικά, see Jouanna 2011, 67-70. Aetios of Amida also provides a single reference to a φυσικόν of Archigenes concerning a dental affection; see 8.31.

checked for lack of an original text. This is actually the first and longest section dealing with natural remedies in the *Therapeutics*. The first reference to Archigenes comes immediately after the introductory phrases:

And so, Archigenes in his work (*On Drugs according to Kind*) gives the following advice: ‘at the time of the seizures, it is necessary to maintain all the body parts in a steady condition, just as with those suffering from temporary shivering; then, straighten out each limb a little with the help of greased hands and soften the eyes and gently caress them. At the same time, the patient should be venesected.’ (1.15, Puschmann 1.557.18-23)

The remedy seems very simple and is followed by more details for anointing the entire head with warm oil (1.15, Puschmann 1.557.23-559.6). Since epilepsy was considered a ‘cold’ and ‘moist’ disease (1.15, Puschmann 1.537.14-5), the advice is related to the restoration of balance in the body of the patient through the external application of a warming agent. The passage does not seem to contain anything with connotations of a superstitious nature such as might be included in the natural remedies as we will see below, and a similar recommendation can even be found in the works of other ancient authors such as Aretaeus (*CA*, 1.5.3). It is worth noting, however, that the very first reference to a specific source in Alexander’s natural remedies is related to Archigenes. The fact that Alexander refers to the title of Archigenes’ pharmacological work – which is also mentioned several times by Galen (cf. *Comp.Med.Loc.* 5.1, Kühn 12.807.11) – and that the passage is not found in any earlier surviving medical work, would suggest that he was drafting directly from the original.

After a few natural remedies relating to the diagnosis of epilepsy and the first mentions of various kinds of amulets, Archigenes’ name comes up again, this time in connection with therapeutic advice:

Another Remedy.

Others say that having once diagnosed the epileptics, it is necessary to treat them, just as Archigenes advises. And so before starting the diet, (the patient) should drink plenty of water accordingly and abstain from meat and sexual intercourse. Furthermore, physicians with a certain (amount of) experience

have observed that certain unguents could be applied. The following (remedies) are also suitable for epileptics: give (them) liver of weasel, without bile, with half a *kotyle* of water to drink on an empty stomach for three days. Others say that by giving the patient a piece of burned cock, it takes away the disease. And these (the aforementioned) are taken from the (remedies) of Archigenes. (1.15, Puschmann 1.561.17-563.4)

Here, we can see a heterogeneous group of recommendations under the subheading ‘another remedy(ies)’ (‘ἄλλο’), which is quite common in several places in Alexander’s works, where he wants to present more similar advice (cf. *Febr.* 6, Puschmann 1.403.1; and 2, Puschmann 2.67.4).<sup>38)</sup> Furthermore, after the first reference to Archigenes and the subsequent advice about the patient’s diet, the phrase about the use of unguents comes up quite abruptly and it may suggest a corruption of Alexander’s text.<sup>39)</sup> The final sentence, however, seems to refer to the remedies already provided and once again connects the passage with Archigenes, thus showing Alexander’s eagerness to make clear his source. In fact, the last two pieces of advice contain vague details on the use of animal parts without any explanatory details as to *how* or *why* they treat the disease, which in contrast to the previous passage examined, implies they may be remnants of folk medicine.

Alexander’s final mention of Archigenes certainly constitutes the most interesting one concerning natural remedies so far:

Amulets and remedies for epileptics from the work of Archigenes.

Amulets, which are useful for the disease (epilepsy), as Asclepiades Pharmakion<sup>40)</sup> (recommended). Hang from the arm of the patient a nail from a

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<sup>38)</sup> We must also bear in mind that the titles of paragraphs and their actual place in the manuscript varied greatly in Byzantine medical manuscripts. For instance, quite often paragraphs are not separated in the main body of the text or the titles are given in the margins without any clear indication as to which part of the text they refer.

<sup>39)</sup> In fact, Puschmann’s edition of Alexander’s corpus presents lots of linguistic and structural irregularities; on the latter, see, Zipser 2005, 211-34, who shows that the last three Books of the *Therapeutics* are given in reverse order in some branches of the textual tradition.

<sup>40)</sup> Medical author of the first century AD, known for his great interest in pharmacology; see, Wellmann 1896, 1633-4.

cross and it will take away (the disease). Zalachthes<sup>41)</sup> says the following: ‘jasper stone, the so-called smoking stone, is hung (around the patient) for all (diseases) related to the head and mind’ and if rubbed and sprinkled with water, it has an evident and wonderful action. Osthane<sup>42)</sup> says to suspend coral, peony<sup>43)</sup>, and root of Hound’s berry<sup>44)</sup>, which have been collected during a waning moon and wrapped in a piece of linen. (1.15, Puschmann 1.567.10-8)

Here Archigenes is using a number of other authors, including Asclepiades Pharmakion, as his sources but he also includes obscure references to Osthane and Zalachthes. There are a few other remedies after that, which in Puschmann’s edition are printed with separate subheadings.<sup>45)</sup> We can see a variety of recommendations for the use of amulets, including minerals (e.g. jasper), but also plants collected at specific phases of the lunar cycle. The waning moon, in particular, was connected with rituals of release and letting go of unwanted things, something strongly associated with epilepsy, a disease, which people believed was caused by the influence of the full moon.<sup>46)</sup> Such procedures with strong superstitious connotations may be found in some other remedies of Alexander’s,<sup>47)</sup> but in this case show the great range of Archigenes’ advice on natural remedies, namely from simple

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<sup>41)</sup> Bidez and Cumont 1938, 2.302, identify the author with a certain Zachalias, who according to Pliny, *Nat.* 37.169, recommended the use of gems.

<sup>42)</sup> Osthane was probably a theologian at the court of Xerxes and is considered to have introduced Persian mysticism to Greece as early as the Hellenistic period. For a discussion of all the available evidence, see Bidez and Cumont 1938, 1.165-212 and 2.267-356.

<sup>43)</sup> ‘γλυκισίδη’ (*Paeonia spp.* L.).

<sup>44)</sup> ‘στρύχνον’ (*Solanum spp.* L.).

<sup>45)</sup> Mavroudis 2000, 50, n.25, and 159, n.90, suggests that all the remedies that follow, i.e. Puschmann’s 2.567.19ff, constitute part of the reference to Archigenes. However, this is not clear from the text and in the absence of Archigenes’ original text, we cannot be sure as to where the quotation actually ends.

<sup>46)</sup> Alexander himself does not seem to differentiate between lunacy and epilepsy, placing recipes for ‘lunatics’ (‘σεληνιακός’) beside those for ‘epileptics’ (‘ἐπιληπτικός’); see 1.15, Puschmann 1.563.10-24. On lunacy in ancient medical literature, see Leven 2005b, 626-7.

<sup>47)</sup> For example, in his natural remedies for gout (12, Puschmann 2.581.21-5), Alexander suggests wearing a gold lamella inscribed with a verse from Homer, *Il.* 2.95, when the moon was in Libra.

recommendations for anointing with a particular agent to procedures for which a plausible scientific explanation would be hard to find.

## 5. Conclusion

We see that Alexander makes use of Archigenes both in his general therapeutic approach and in his special sections on the use of natural remedies. On the latter Alexander, unlike other authors such as Aetios of Amida, does not remain silent, but tries to give a reason for each choice. Archigenes is one of his main sources in these parts and, in contrast to other little-known or obscure authorities cited by Alexander, he seems to bear all the characteristics of a respectable ancient medical author. The fact that Archigenes becomes Alexander's *theiotatos* could be explained in the context of Alexander's decision to include natural remedies in his work. Alexander would like to present himself in true Archigenic fashion and to show his readers that the inclusion of popular practices, although widely criticised by the majority of ancient medical authors, could find a place in his work just as it had in his master's writings almost four centuries earlier. Alexander's decision to avoid the appellation in connection with Archigenes' advice on natural remedies is in line with his apologetic attitude towards the use of popular healing practices *per se*. He never appears quite enthusiastic to his readers and thus such a use of the term would have run the risk of attaching an unfavourable connotation to the authority of his master.<sup>48)</sup>

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<sup>48)</sup> All translations from Greek are my own. I would like to thank Dionysios Stathakopoulos, Sophia Xenophontos, and the anonymous referees for their helpful comments and suggestions.

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